Appendix B: XML Glossary

ANSI - *American National Standards Institute* – is a voluntary organization composed of over 1,300 members that creates standards for the computer industry.

CommonLine – created by NCHELP, the industry-standard file format that is used by schools and service providers to exchange loan data. PESC is presently collaborating with FSA to develop a CommonLine Schema.

Common Record - XML formatted file used to submit Pell Grant and/or Direct Loan origination and disbursement data to the Common Origination and Disbursement (COD) System.

COTS products - *Commercial Off-The-Shelf products* - describes software or hardware products that are ready-made and available for sale to the general public. COTS products are designed for easy implementation without the need for customization.

CRM – *Customer Relationship Management* - entails all aspects of interaction a company has with its customer, whether it is sales or service related. Organizations are looking for ways to personalize online experiences (a process also referred to as mass customization) through tools such as help desk software, e-mail organizers and Web development applications.

DTD - *Document Type Definition* - states what tags and attributes are used to describe content in an SGML, XML or HTML document, where each tag is allowed, and which tags can appear within other tags. Applications will use a document's DTD to properly read and display a document's contents. Changes in the format of a document can be easily made by modifying its' DTD.

EAI - *Enterprise Application Integration* - is the unrestricted sharing of data and business processes throughout the networked applications or data sources in an organization. Early software programs in areas such as inventory control, human resources, sales automation and database management were designed to run independently, with no interaction between the systems. They were custom built in the technology of the day for a specific need being addressed and were often proprietary systems. As enterprises grow and recognize the need for their information and applications to have the ability to be transferred across and shared between systems, companies are investing in EAI in order to streamline processes and keep all the elements of the enterprise interconnected.

ebXML - *electronic business eXtensible Markup Language* - is a set of specifications for standardizing XML globally to facilitate trade between organizations regardless of size. The specification gives businesses a standard method to exchange XML-based business messages, conduct trading relationships, communicate data in common terms and define and register business processes.

EDI - *Electronic Data Interchange* - is the transfer of data between different companies using networks, such as the Internet.

ERP - *Enterprise Resource Planning* - a business management system that integrates all facets of the business, including planning, manufacturing, sales, and marketing ERP is implemented for business activities such as inventory control, order tracking, customer service, finance and human resources.

FTP – *File Transfer Protocol* - the protocol used on the Internet for sending files.

HTTP - *HyperText Transfer Protocol* – is the underlying protocol used by the World Wide Web. HTTP defines how messages are formatted and transmitted, and what actions Web servers and browsers should take in response to various commands.

ISIR – *Institutional Student Information Record* - refers to all processed student information records that are sent electronically directly to institutions by the Central Processing System (CPS).

NCHELP – *National Higher Education Loans Programs* - represents a nationwide network of guaranty agencies, secondary markets, lenders, loan servicers, collectors, schools and other organizations involved in the administration of the Federal Family Education Loan Program (FFELP).

Meteor project – is an open online resource to serve schools students and their families. It offers the ability to access timely student-specific financial aid information from multiple sources, and provides a one-stop, common, on-line customer service resource for schools.
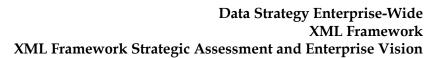
PESC – *Post Secondary Electronic Standards Council* - serves as an umbrella organization for organizations wishing to support electronic standards in higher education.

SAIG – *Student Aid Internet Gateway* – offers Title IV-eligible post-secondary institutions, third-party servicers, state agencies, lenders and guarantors a secure, Internet-based method of exchanging Title IV data with the FSA Application Systems.

SOAP - *Simple Object Access Protocol* - is a lightweight XML-based messaging protocol used to encode the information in Web Services request and response messages before sending them over a network. SOAP messages are independent of any operating system or protocol and may be transported using a variety of Internet protocols.

TCP/IP - *Transmission Control Protocol/Internet Protocol* - is the suite of communications protocols used to connect hosts on the Internet. TCP/IP uses several protocols, the two main ones being TCP and IP.

UDDI - *Universal Description, Discovery and Integration* – is a Web-based distributed directory that enables businesses to list themselves on the Internet and discover each other, similar to a traditional phone book's yellow and white pages.

UML - *Unified Modeling Language,* a general-purpose notational language for specifying and visualizing complex software, especially large, object-oriented projects. UML builds on previous notational methods such as Booch, OMT, and OOSE. It is being developed under the auspices of the Object Management Group (OMG).

WAP - *Wireless Application Protocol* – is a secure specification that allows users to access information instantly via handheld wireless devices such as mobile phones, pagers, two-way radios, smartphones and communicators.

Web services – is a standardized way of integrating Web-based applications using the XML, SOAP, WSDL and UDDI open standards over an Internet protocol backbone. XML is used to tag the data, SOAP is used to transfer the data, WSDL is used for describing the services available and UDDI is used for listing what services are available. Web services allow different applications from different sources to communicate with each other without time-consuming custom coding, and because all communication is in XML, Web services are not tied to any one operating system or programming language. For example, Java can talk with Perl, Windows applications can talk with UNIX applications.

WML - *Wireless Markup Language* - is an XML language used to specify content and user interface for WAP devices. Almost every mobile phone browser around the world supports WML.
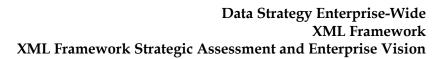
WSDL - *Web Services Description Language* - is an XML-formatted language used to describe a Web service's capabilities as collections of communication endpoints capable of exchanging messages. WSDL is an integral part of UDDI, an XML-based worldwide business registry. WSDL is the language that UDDI uses.

W3C - *World Wide Web Consortium* – is an international consortium of companies involved with the Internet and the Web. The organization's purpose is to develop open standards so that the Web evolves in a single direction rather than being splintered among competing factions.

XML Schema – is a way to describe and validate data in an XML environment. A *schema* is a model for describing the structure of information. Because schemas are written in XML, there is no need for a parser as is the case with DTDs. Schemas also have the capability to define richer data types such as booleans, numbers, dates and times, and currencies. (See Appendix D: XML Technologies for more information.)

XML Namespaces - is a collection of names, identified by a Uniform Resource Identifier (URI) reference, that are used in XML documents as element types and attribute names. In order for XML documents to be able to use elements and attributes that have the same name but come

from different sources, there must be a way to differentiate between the markup elements that come from the different sources.

XSL – *eXtensible Style Language* - is a specification for separating style from content when creating HTML or XML pages. The specifications work much like templates, allowing designers to apply single style documents to multiple pages.

XSLT - *eXtensible Style Language Transformation* - is the language used in XSL style sheets to transform XML documents into other XML documents. An XSL processor reads the XML document, follows the instructions in the XSL style sheet, and then outputs a new XML document or XML-document fragment. This is useful when data needs to be converted into different representations of XML.

Reference

Many of the definitions listed above are available at:

http://www.webopedia.com